



A.D. 1858, 10th SEPTEMBER. N^c 2053.

S P E C I F I C A T I O N

OF

JEAN PROSPER KOENIG.

PNEUMATIC CATHETER.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:
PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
25, SOUTHAMPTON BUILDINGS, HOLBORN.

1859.



A.D. 1858, 10th *SEPTEMBER*. N^o 2053.

Pneumatic Catheter.

LETTERS PATENT to Jean Prosper Koenig, of the Rue de Fleurus, Paris, in the Empire of France, for the Invention of “**IMPROVEMENTS IN A SURGICAL INSTRUMENT CALLED A PNEUMATIC CATHETER.**”

Sealed the 30th November 1858, and dated the 10th September 1858.

PROVISIONAL SPECIFICATION left by the said Jean Prosper Koenig at the Office of the Commissioners of Patents, with his Petition, on the 10th September 1858.

I, JEAN PROSPER KOENIG, of the Rue de Fleurus, Paris, in the Empire of France, do hereby declare the nature of the said Invention for “**IMPROVEMENTS IN A SURGICAL INSTRUMENT CALLED A PNEUMATIC CATHETER,**” to be as follows:—

Into a crystal cup I pour a certain quantity of spirits of wine, to which I set fire. I then close the cup with an obturator furnished with an india-
10 rubber tube, all communication with the extremity of which is intercepted by a stop or key; upon the extinction of the flame the air will have been exhausted, and a vacuum formed in the tube, the extremity of which is introduced into the urethral canal, and an india-rubber cup, slightly anointed with an unctuous matter, completes the cohesion, and prevents the introduction of air from the
15 exterior; the key is then turned, and the vacuum spreads successively along the whole extent of the urinal canal to the bladder, which contracts upon itself, and forcibly ejects the urine by a canal carrying it to the crystal cup. When the urine ceases to flow, by pressing a valve, air is introduced into the interior of the apparatus, destroying the vacuum and permitting the removal
20 of the obturator. Or, in lieu of the valve and canal, a tap may be fixed at the bottom of the crystal cup, by which the urine may be withdrawn without interrupting the operation.

Koenig's Improvements in a Surgical Instrument called a Pneumatic Catheter.

If preferred, a spirit lamp, moveable on its axis, may be introduced into the neck of the vase. Or, I dispense with fire, using a force pump with two conduits, furnished with valves, the one opening, ejecting the gases or liquids as the other closes; this is applicable to every description of catheter. Or, I use a hollow cylinder, the upper orifice closing with a key, the lower by 5 a tap, which is opened when the cylinder is filled with liquid. A winch placed on the neck of the cylinder, on being turned, raises a piston furnished with a spiral rod, and exhausts the air in the cylinder. Or, I use a crystal globe surmounted by an air pump, the metal neck having an inner canal communicating with the pump. A key closes the globe when the air is exhausted, 10 and by removing a screw or screws, the pump is separated therefrom.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Jean Prosper Koenig in the Great Seal Patent Office on the 10th March 1859.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JEAN 15
PROSPER KOENIG, of the Rue de Fleurus, Paris, in the Empire of France, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Tenth day of September, in the year of our Lord One thousand eight hundred and fifty-eight, in the twenty-second year of Her 20 reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Jean Prosper Koenig, Her special licence that I, the said Jean Prosper Koenig, my executors, administrators, and assigns, or such others as I, the said Jean Prosper Koenig, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time 25 and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**IMPROVEMENTS IN A SURGICAL INSTRUMENT CALLED A PNEUMATIC CATHETER,**" upon the condition (amongst others) that I, the said Jean Prosper 30 Koenig, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date 35 of the said Letters Patent.

Koenig's Improvements in a Surgical Instrument called a Pneumatic Catheter.

NOW KNOW YE, that I, the said Jean Prosper Koenig, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say :—

5 My Invention consists in constructing and operating instruments called pneumatic catheters in the manner herein-after described, and are designed to supersede probes, bougees, and such like surgical instruments employed in the treatment of diseases of the genito-urinary parts, fistula, lachrymalis, and also external and internal affections of the ear.

10 And in order to explain my said Invention as completely as possible, I have attached to these Presents two Sheets of illustrative Drawings, on which are marked numeral figures and letters of reference, similar letters being employed to denote corresponding parts, in so far as such parts appear or can be seen at each of such said Figures respectively.

15 DESCRIPTION OF THE DRAWINGS.

At Figure 1, A is a crystal vessel; B is a stopper fitting thereinto, and provided with a piece of india-rubber tubing E, to which a cock F is affixed; H is the outer extremity of the tube E. To use this apparatus or instrument proceed as follows:—Pour into the vessel A a large spoonful of spirits of
20 wine, to which set fire by means of the rod B (at Figure 3), which is provided with a brush of amainthus; this being done, close the opening immediately by inserting the stopper B thereinto, taking care that the cock F is shut off; incline the vessel A sufficiently to prevent the flame from the spirit from injuring the stopper. The flame being extinguished, a vacuum is thus
25 formed within the vessel and the tube E. The operator now thrusts the end H of the tube into the canal of the urethra, first coating the india-rubber cup G with any suitable fatty substance, so as to entirely exclude ingress of atmospheric air; he then opens the cock F, and thus opens a communication between the vacuum and the canal through which the urine generally passes
30 up to the bladder; the effect of which is to cause the bladder to contract, and force therefrom the urine through the tube into the vessel A. When the urine has ceased to flow, the operator then opens a cock at D, and by thus admitting air into the vessel A, destroys the vacuum therein, which allows of the removal of the instrument from the patient. Figure 2 shews the stopper,
35 drawn full size, made of cork and wood, and lined with German silver. Figure 4 exhibits an instrument somewhat similar in its construction to that lastly above described, but differing therefrom in the following respects, that is to say, instead of the cock at D and passage at C for the admission of air, the

Koenig's Improvements in a Surgical Instrument called a Pneumatic Catheter.

vase A has a cock X fitted thereto, which, when the instrument is in use, and the urine is flowing into the vessel A, this cock may be opened and allow the urine to pass out ; and when it has ceased to flow, the air entering, will destroy the vacuum. Figures 5 and 6 exhibit another modification of the first above-mentioned instrument, and differs therefrom in the following 5 respects, that is to say, instead of affixing the stopper B to the tube E, I make them separate, and connect the said tube to the vessel A, as exhibited. I also use a spirit lamp (shewn by red lines) which fits into the spout of the vessel A. To use this instrument or apparatus, the operator withdraws the stopper and the spirit lamp, and setting fire to the spirit, turns the vessel 10 A upside down, and inserts the lamp and stopper thereinto, holding the vessel in that position until the flame is extinguished, he then operates with in a similar manner to that before described.

I now proceed to describe another form of construction of pneumatic catheter, as follows :—Figure 7 of Sheet 1 exhibits an exhausting and 15 forcing pump of metal, having openings and tubes at the lower part thereof furnished with valves A and B ; that marked A shuts as the piston C ascends, and that marked B opens, and as the piston descends, the valve B shuts, and the valve A opens to allow the gases or liquids to be driven out by the piston. This instrument can be applied to all cases of catheterism, and moreover may 20 be used for the extraction of all gases or liquids diffused throughout the organs of the human system. I would here observe, that for the extraction of gases, and in cases of abdominal and tympanite meteorism, and of physometry, &c., it is necessary in cases of tympanite to adapt to the extremity of the india-rubber tube E, a broad pointed pipe furnished with a cup or disc of the same 25 material. The intestines of the patient must first be cleared, and then he will be relieved at each stroke of the piston of the instrument, and ultimately the intestines will assume their ordinary size.

For the extraction of liquids diffused in the plura, the peritonæum, &c., it will be necessary to thrust the extremity of the tube into the artificial opening, 30 and impart motion to the piston of the instrument.

At Sheet 2, Figures 8 and 9 exhibit two views of another form of pump or catheter, being a modification of the instrument lastly above described, and marked Figure 7, at Sheet 1, and differing therefrom in the following respects, that is to say, the piston rod instead of being formed plain, has a 35 screw cut about it, over which fits a ferrule D, formed with four projecting pieces X, X, for turning same round. The bottom of this said ferrule rests upon, and is fitted into a recess formed in the lid of the pump barrel, as exhibited at Figure 9. By turning round the ferrule D in one direction, the

Koenig's Improvements in a Surgical Instrument called a Pneumatic Catheter.

piston will be raised, and a vacuum be thus formed beneath the same; the liquid to be removed enters by the cock A, and when the cylinder F is full it may be drawn off by the cock B. The cover of the cylinder should have a few small holes formed therein for the escape of air, &c. during the ascent of the piston. Figure 10 exhibits a small cover to be screwed on to the top of the piston rod when the instrument is not in use. Figures 12, 13, exhibit the construction of the cup or disc which I affix to the tube E. Figures 14, 15, shew two views of another form of cup intended to be used more particularly in cases where the patient is subject to great sensibility of the urethra. Figure 16 is a tube intended to be used when operating upon the external part of the ear. Figure 17 is for the internal part thereof, called Eustace trump or horn, and for the catheterism of the nose canal in the fistula lachrymalis. Figure 18 is a small syringe pipe, furnished with a flexible cup or disc, and is intended to be inserted into the orifice of the arms in cases of tympanite, strangled hernia, and miserere.

Figure 11 exhibits another form of construction of pneumatic catheter, being a combination of the pump and crystal vessel, before described. The pump B is connected to the vessel A by a screw at H; C is a cock for cutting off the communication between the vessel A and the pump, when a vacuum has been produced; D is a valve which opens as the piston F ascends and closes; as said piston descends, E shows the valve and orifice which opens as the piston descends, and closes as said piston ascends.

Having now fully described and set forth the nature and object of my said Invention of "Improvements in a Surgical Instrument called a Pneumatic Catheter," together with the best means I am acquainted with for carrying the same into practical effect, I hereby declare my Invention to consist in and I claim an instrument of the above construction, and modified as exhibited and described.

In witness whereof, I, the said Jean Prosper Koenig, have hereunto set my hand and seal, this Eleventh day of January, in the year of our Lord One thousand eight hundred and fifty-nine.

JEAN PROSPER KOENIG. (L.S.)

Witness,

VIC. NICOLA GÉRARD,

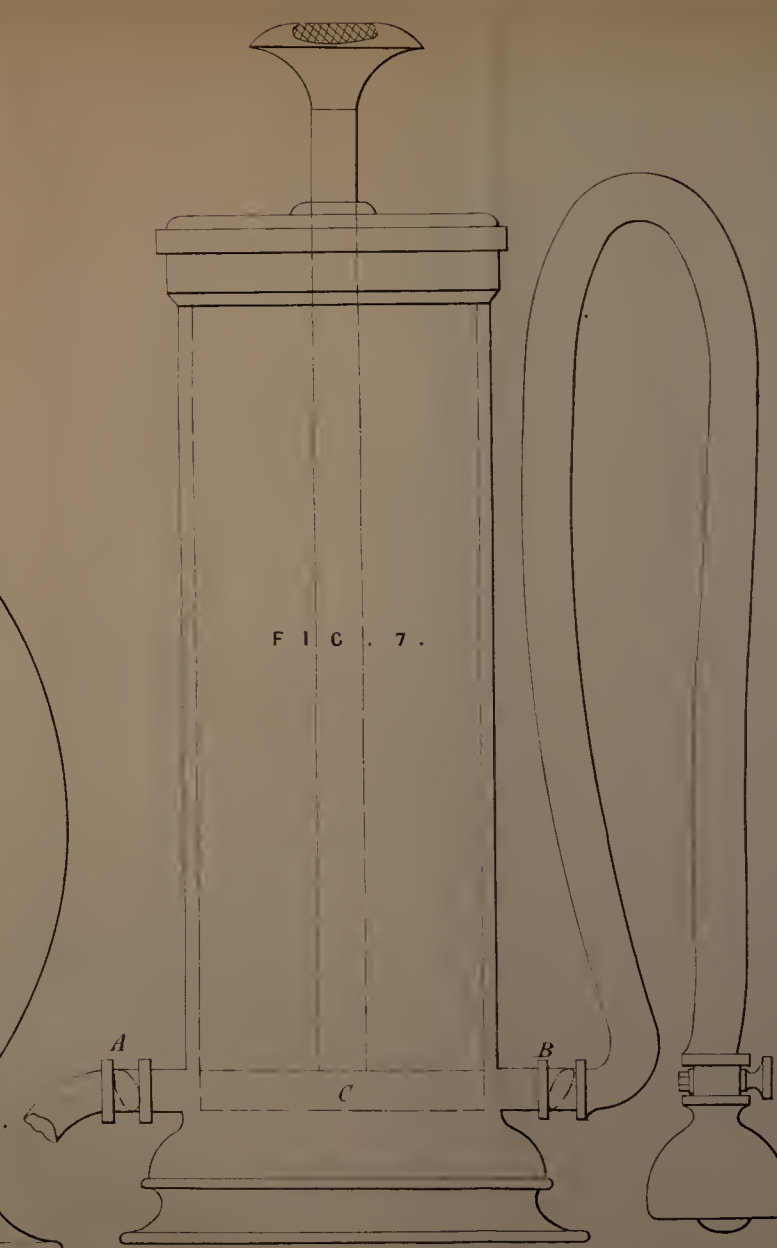
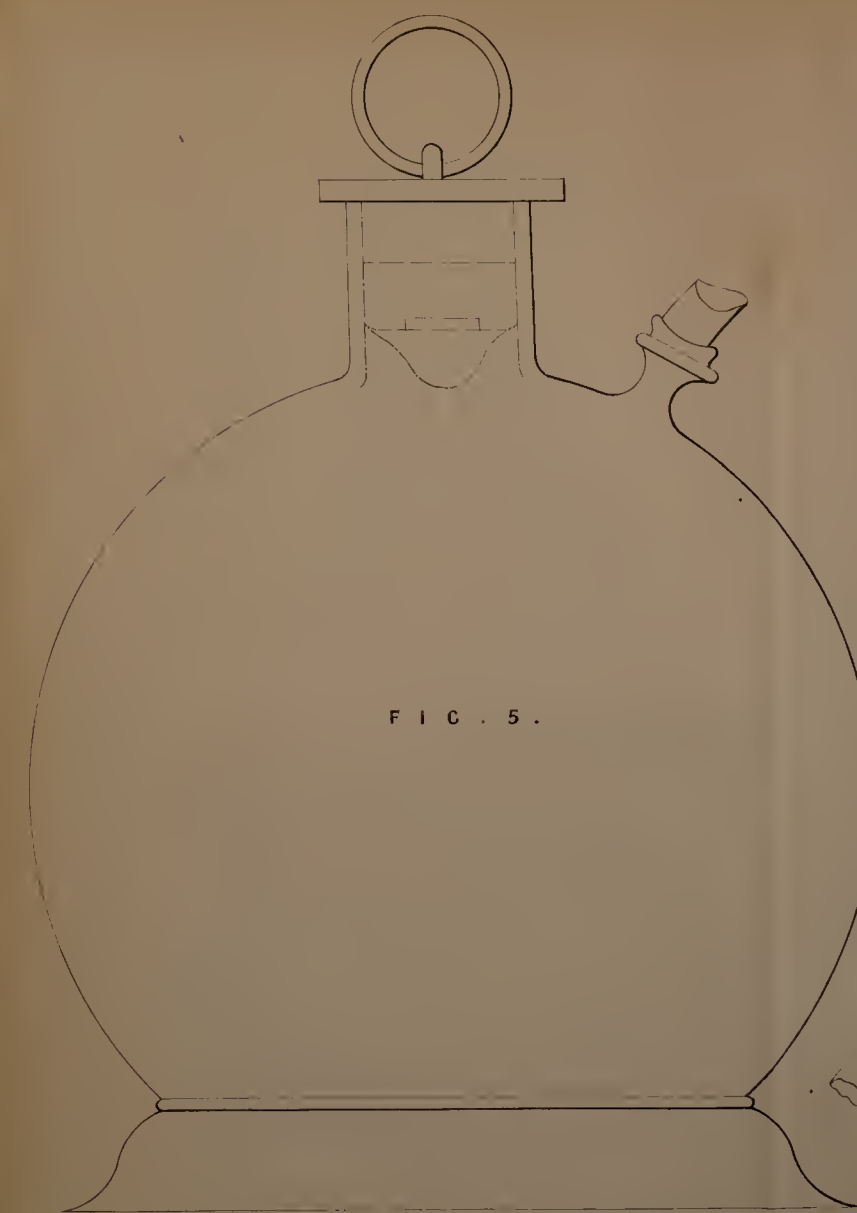
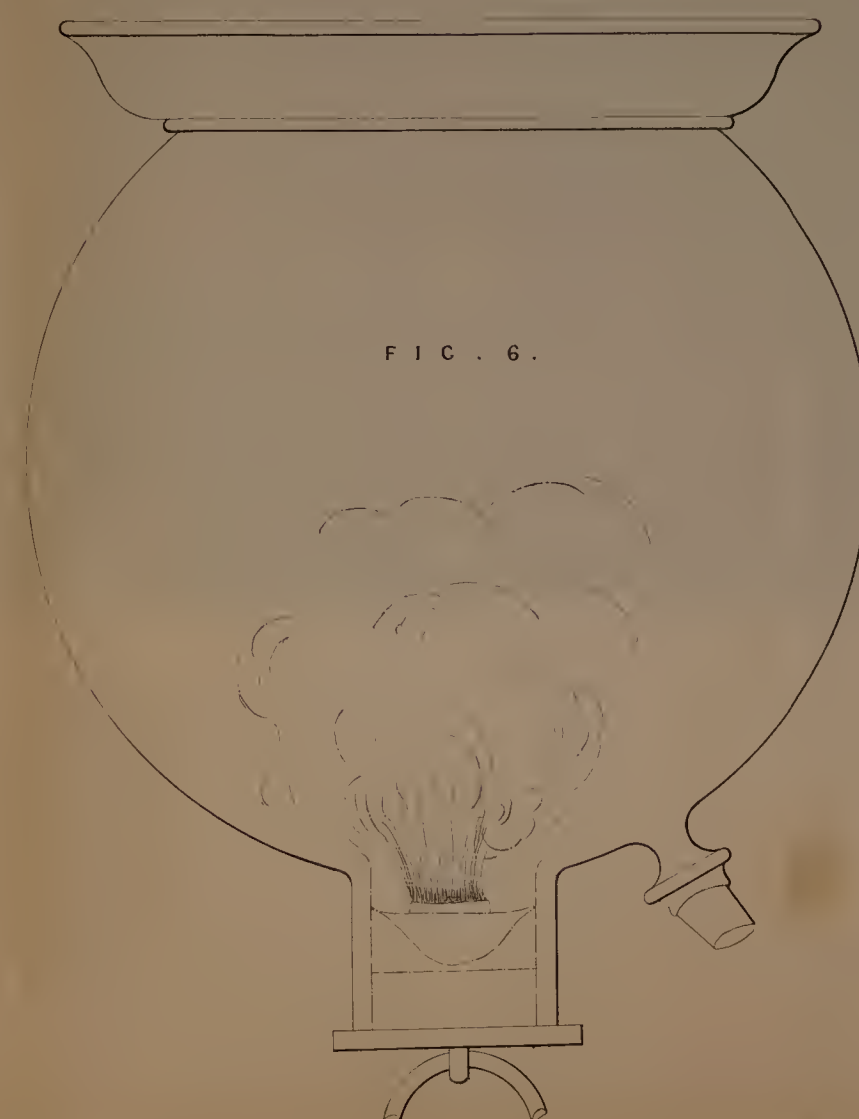
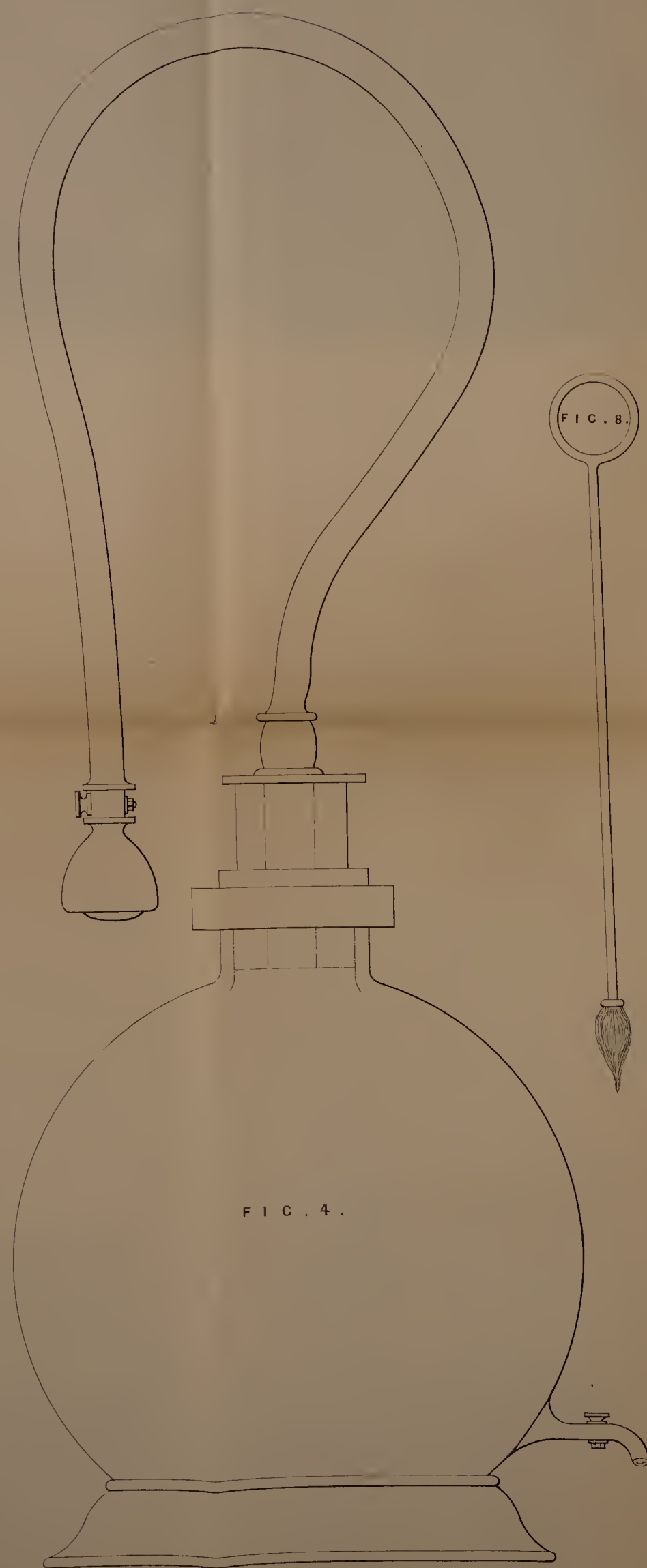
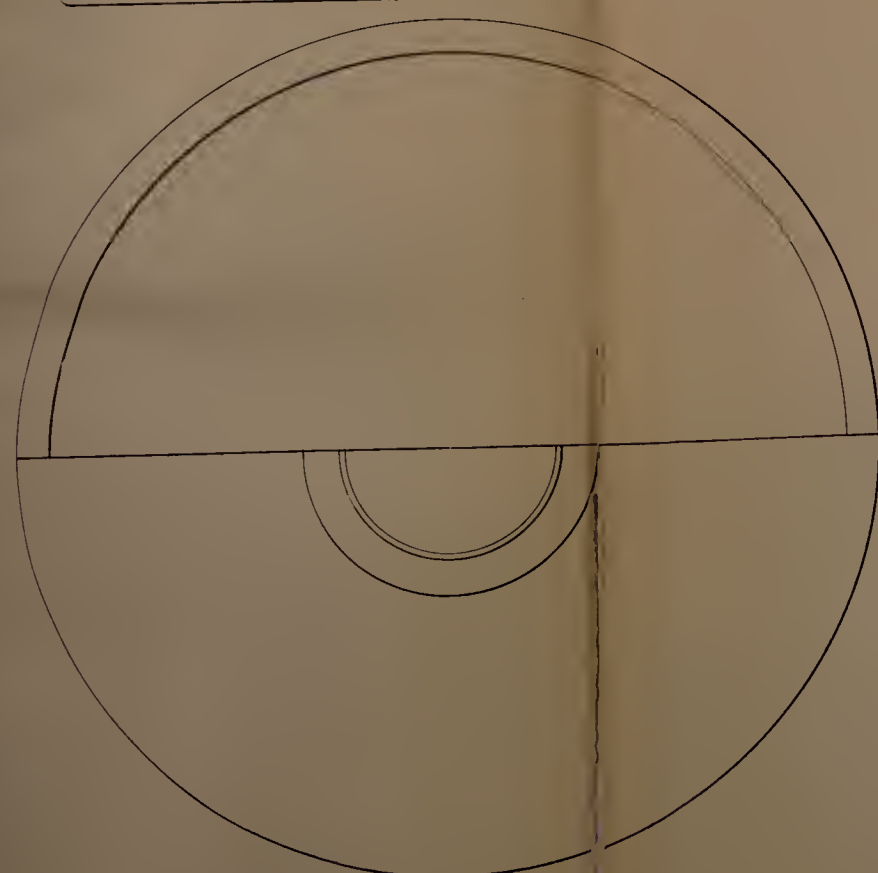
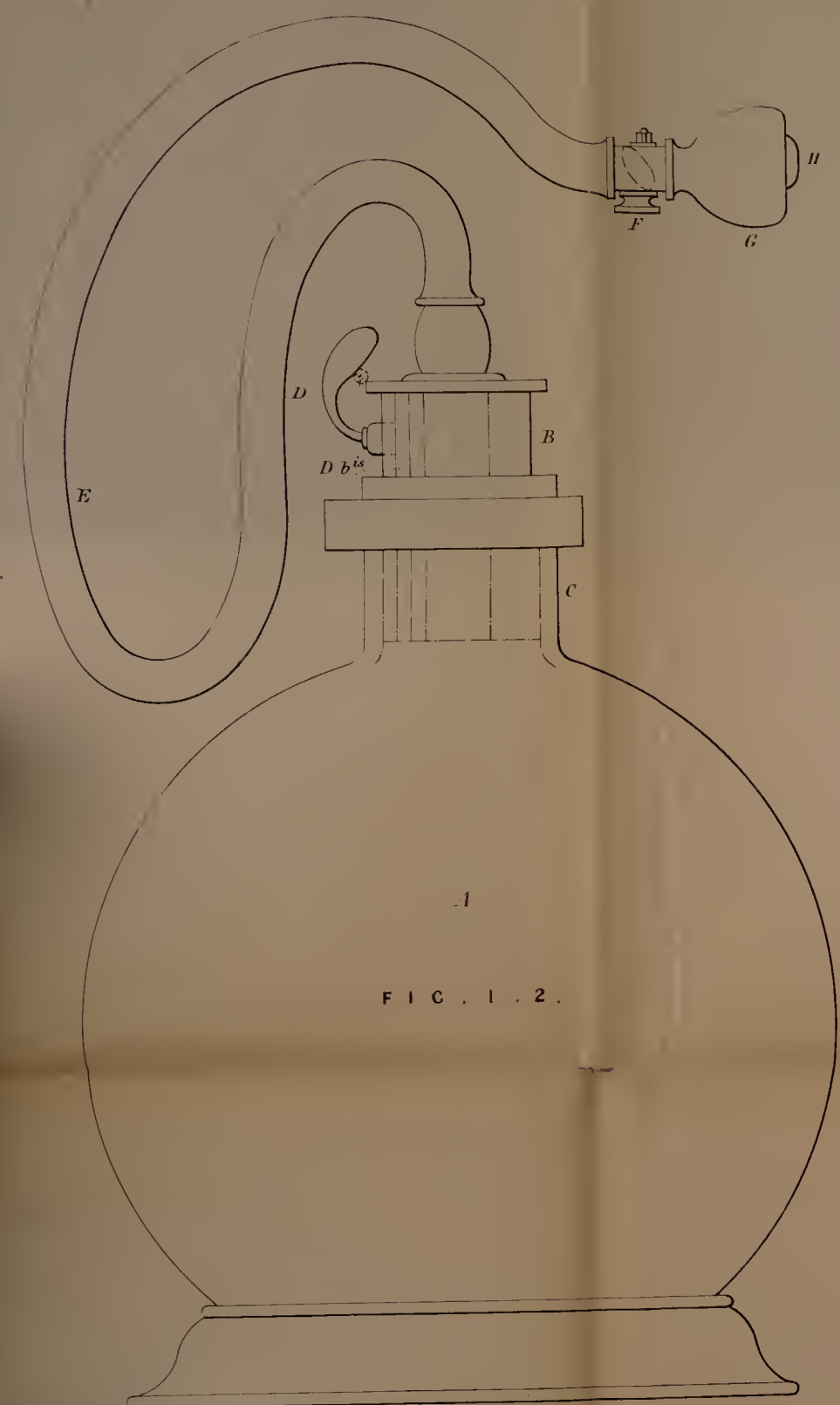
Rue de Sevres, No. 85,

Paris.

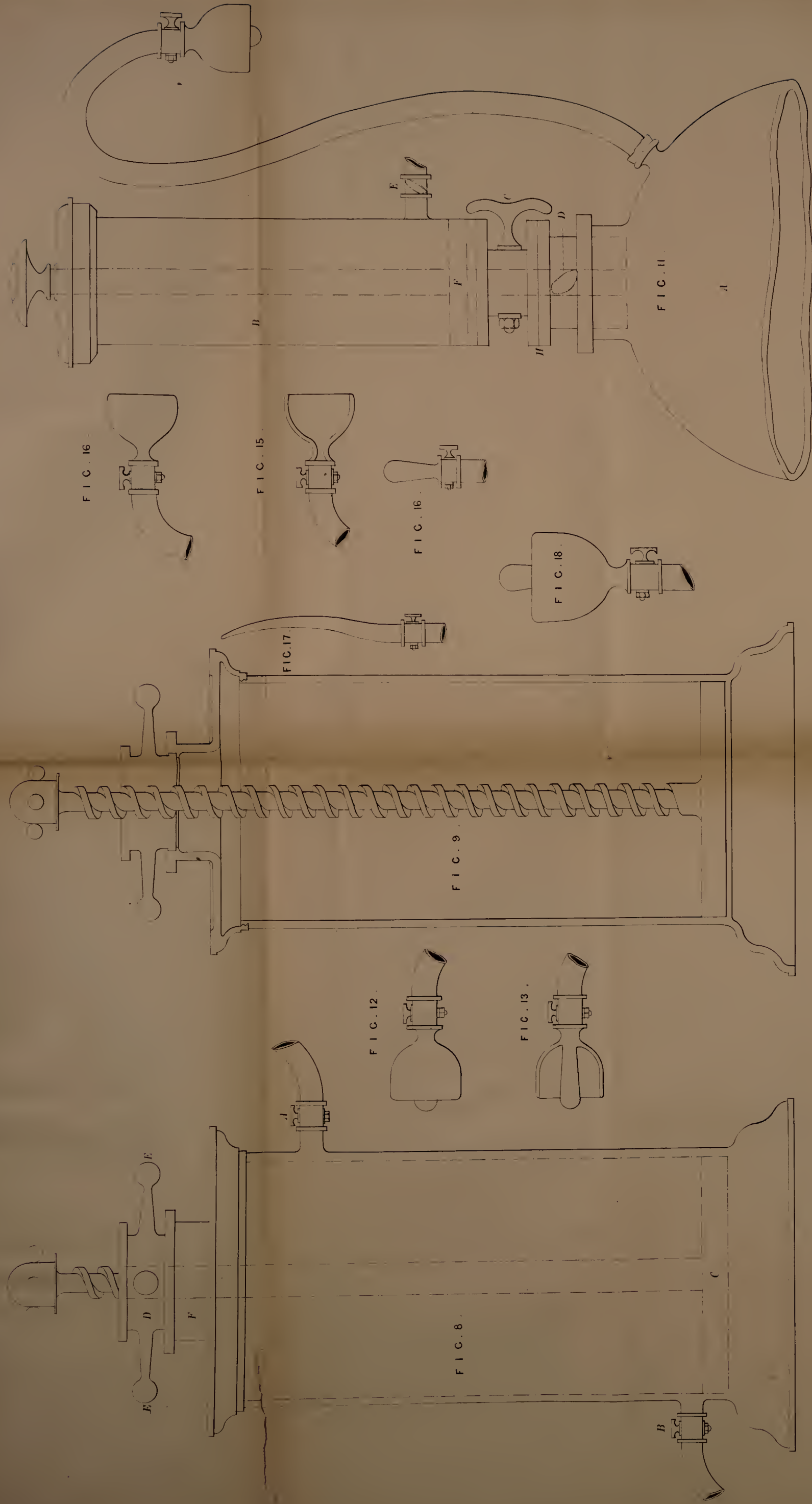
LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1859.

1, 2, 3, 4, 5, 6 Operateur par le feu
 7. Operateur à froid.



Opérateur à froid.



The filed drawing is partly colored.

